Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Missile Defense Agency

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4:

PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)

Date: February 2018

Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	369.479	53.483	53.265	54.925	-	54.925	58.498	57.764	59.020	61.915	Continuing	Continuing
MD22: Missile Defense Integration and Operations Center (MDIOC)	353.956	50.516	50.261	51.841	-	51.841	55.313	54.499	55.597	58.422	Continuing	Continuing
MC22: Cyber Operations	1.568	0.446	0.612	0.610	-	0.610	0.634	0.646	0.659	0.672	Continuing	Continuing
MD40: Program-Wide Support	13.955	2.521	2.392	2.474	-	2.474	2.551	2.619	2.764	2.821	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

FY17 Actuals - realignments occurred between R2a Infrastructure Systems and Support and R2a Infrastructure Systems Repair, Sustainment and Critical Upgrades due to start-up of Integrated Research and Development for Engineering Solutions (IRES) transition contract award.

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) is the Missile Defense Agency's (MDA) field operating activity in Colorado Springs, Colorado. It provides necessary infrastructure and support services through a mission execution platform for MDA elements/components and designated Combatant Commanders' Ballistic Missile Defense System (BMDS) operations executing missions at the MDIOC. The Integration Center is the organization responsible for providing a single, integrated set of skilled personnel matrixed from across MDA to manage this mission. The MDIOC mission facilities consist of a highly secure research and development complex and a mission support module (area) located at Schriever Air Force Base, adjacent to North American Aerospace Defense Command (NORAD) and United States Northern Command (USNORTHCOM). The MDA Integration Center provides mission critical system technical capabilities and subject matter expertise in a dedicated and adaptable environment that enables developers, testers, and operators to evolve, assess and deliver the capabilities for layered missile defense execution for homeland defense and theater/regional support. The MDIOC interfaces with the Information Technology/Information Assurance Enterprise to provide high availability access to worldwide secure communications, network health and status monitoring, mission critical restoral capability, and technical expertise for all MDA directed activities and events. The MDIOC functions as the mission control for BMDS distributed ground tests and system wide flight tests enabling the mission and test directors to control both main and associated test operations using secure voice, test, and mission network hubs from the MDIOC. The MDIOC also functions as the only system-level integration and interoperability mission execution platform for BMDS fire control; and it provides the physical interface between the developers and the Combatant Command warfighters.

MDIOC mission facilities contribute to the BMDS by directly supporting the concept of Concurrent Test, Training, and Operations (CTTO) for the BMDS by providing engineering integration, resource scheduling, configuration management, and implementation development support for MDA and BMDS-level test, training, and operational mission execution.

MDIOC Major Program Goals:

PE 0603904C: Missile Defense Integration and Operatio... Missile Defense Agency

UNCLASSIFIED
Page 1 of 28

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Missile Defense Agency

Appropriation/Budget Activity R-

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 Program Element (Number/Name)

PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)

Date: February 2018

- -Provide the capabilities and services necessary to support engineering integration, resource scheduling for ground and flight tests, configuration management, and implementation development support of on-site activities
- -Ensure around the clock support and restoral of designated BMDS operational activities
- -Improve interface with designated Combatant Command missile defense activities; host/support the headquarters and operations center for the United States Strategic Command
- Joint Functional Component Command Integrated Missile Defense
- -Continue to achieve cost effectiveness and efficiencies by leveraging existing Missile Defense Integration and Operations Center infrastructure, services, processes, and expertise to support assigned missions
- -Maintain and improve the reliability, availability, and maintainability of MDIOC mission critical systems

Program-Wide Support (PWS) consists of essential non-headquarters management efforts providing integrated and efficient support to MDA functions and activities across the entire BMDS.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	54.750	53.265	54.505	-	54.505
Current President's Budget	53.483	53.265	54.925	-	54.925
Total Adjustments	-1.267	0.000	0.420	=	0.420
 Congressional General Reductions 	0.000	0.000			
 Congressional Directed Reductions 	0.000	0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 	0.000	0.000			
 Congressional Directed Transfers 	0.000	0.000			
Reprogrammings	0.000	0.000			
SBIR/STTR Transfer	-1.267	0.000			
 FY 2017 Request for Additional 	0.000	0.000	0.000	-	0.000
Appropriations					
 Missile Defeat and Defense Enhancement 	0.000	0.000	0.000	=	0.000
Other Adjustment	0.000	0.000	0.420	-	0.420

Change Summary Explanation

N/A

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency										Date: February 2018		
Appropriation/Budget Activity 0400 / 4						PE 0603904C I Missile Defense Integration N				Project (Number/Name) MD22 I Missile Defense Integration and Operations Center (MDIOC)			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
MD22: Missile Defense Integration and Operations Center (MDIOC)	353.956	50.516	50.261	51.841	-	51.841	55.313	54.499	55.597	58.422	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) sustains and operates a 24 hours a day, 365 days a year mission complex for critical research. development, testing, training, and operations for BMDS activities. The MDIOC supports the Ground-based Midcourse Missile Defense Mission Control Center Facility, as well as the Command, Control, Battle Management, and Communications (C2BMC) Integration and Test Centers and the C2BMC Experimentation Laboratories. It provides infrastructure support for the Satellite Tracking and Surveillance System's (STSS) Missile Defense Space Center (MDSC); and the Targets and Countermeasures' (TC) Mission Control Center - Targets (MCC-T). The MDIOC also provides developmental support to the Enterprise Sensors Laboratory (ESL) composed of a common satellite ground station and sensor netting test bed for designated Ballistic Missile Defense System (BMDS) elements. The MDIOC supports BMDS test events based on the Integrated Master Test Plan (IMTP). It supports BMDS Critical Engagement Conditions testing and analysis through the operation of the Test Execution Control node for distributed BMDS ground tests. During system flight tests, the MDIOC provides infrastructure (power; Heating, Ventilation and Air Conditioning; and communications) support to the Flight Test Director and crew, and ensures the protection of facility and test assets throughout the test window. Further, the MDIOC provides the facilities that support operations of the Missile Defense Element, manned by the U.S. Army 100th Missile Defense Brigade, the United States Northern Command (USNORTHCOM) C2BMC Command and Control Center (CCC), the United States Strategic Command's (USSTRATCOM's) Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD) and the Missile Defense Agency (MDA) Warfighter Support Center. In addition, the MDIOC supports the MDA Operations Support Center, which provides situational awareness of the health and status of the end-to-end BMDS, and provides network subject matter expertise and technical reach back for the program elements and Combatant Commanders. The MDIOC hosts BMDS wargames and exercises in support of the warfighter, and delivers the requisite infrastructure to integrate the modeling and simulation assets that form system-level constructive simulations for full-envelope BMDS performance assessments, with surrogate capability for BMDS ground tests. The MDIOC maintains a technical repository of BMDS Implementation Architectures for real-time operations and configuration control; provides state change management and asset management technical support for the BMDS; and provides the technical environment for BMDS Watch Officers, Safety Officers, and Information Assurance Officers to perform their assigned duties. The MDIOC also supports the operations of the Joint Early Warning Laboratory (JEWL), which provides USSTRATCOM with quick response analyses of real-world launches, and rapid anomaly identification and resolution.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019
Title: Infrastructure Systems and Support	18.994	20.656	17.324
Articles:	-	-	-

PE 0603904C: Missile Defense Integration and Operatio... Missile Defense Agency

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defe	ense Agency	Date: I	ebruary 2018	3		
Appropriation/Budget Activity 0400 / 4	Project (Number/Name) MD22 I Missile Defense Integration and Operations Center (MDIOC)					
B. Accomplishments/Planned Programs (\$ in Millions, Article C	Quantities in Each)	FY 2017	FY 2018	FY 2019		
Description: RECURRING: MDIOC Communications and Special Purpose Processing Node (S - Establish a DoD compliant SPPN capable of meeting the unique redeploy a layered BMDS to defend the United States. - Provide distinctive specifications and provisioning requirements as Evaluation (RDT&E) Mission. - Provide capabilities that dynamically interconnect and integrate m collaboration in near real-time with National Research Laboratories and Test Rarthe BMDS acquisition lifecycle. - Construct the SPPN infrastructure with routers, switches, firewalls	SPPN): network and data center services required to develop and ssociated with the MDA Research, Development, Test and ultiple RDT&E systems to large data sets, and enable nges; and Defense Industrial Base industry partners throu	d				
over 10,500 MDA classified/unclassified users worldwide. - Provide network operations and network monitoring; development and Continuity of Operations rehearsals; internet access management; - Sustain core communications distribution services across the MD/ - Plan, engineer, and implement sustainment projects for general IT	t of detailed solutions, designs, and plans; Disaster Recov and web filtering. A Enterprise.					
architecture roadmap Acquire and distribute mission critical unclassified and secure con and BMDS and Warfighter operational elements Provide computer hosting of specified threat models and support t		ents				
End User Support: - Sustain End User core service support 18 hours a day, 6 days a wunclassified and classified users - Monitor networks for user compliance with DoD policies and reporting - Maintain Printing and Copy Services - Sustain email services (Exchange servers, BlackBerry Enterprise - Sustain file services (file servers and storage area networks) - Maintain Directory Services (Active Directory and domain controlled - Maintain Authentication services (Public Key Infrastructure/Comm	rt incidents Services servers and archiving storage area networks) er servers)	for				

UNCLASSIFIED PE 0603904C: Missile Defense Integration and Operatio... Missile Defense Agency

Page 4 of 28

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defe	nse Agency		Date: Fe	ebruary 2018			
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)	MD22	I Missile Defe	t (Number/Name) Missile Defense Integration and ions Center (MDIOC)			
B. Accomplishments/Planned Programs (\$ in Millions, Article Q	uantities in Each)		FY 2017	FY 2018	FY 2019		
 Maintain current hardware and software licenses for IT operational Maintain an Integrated Service Desk Maintain IT life-cycle asset management of end user devices (desl 	•	Berrys)					
Hardware and Software Asset Management: - Manage government property and IT hardware and software in acceptance of FAR Supplements (DFARs) to include accountability, reporting, war management - Maintain an inventory of IT hardware and software assets connect networks	ehouse management, asset transportation and excess a						
Specific and/or unique accomplishments to a FY are as follows:							
FY 2018 Plans: - SEE ABOVE.							
FY 2019 Plans: - SEE ABOVE.							
FY 2018 to FY 2019 Increase/Decrease Statement: The decrease from FY 2018 to FY 2019 reflects the realignment of the Infrastructure Systems and Support R2a to the Facilities and Mainterworkload integrates into the Engineering and Event support R2a. The new Integrated Research and Development for Enterprise Solutions the overall program content. The decrease also reduces sustainment assume risk in maintaining a consistent. IT architecture roadmap.	enance R2a. The Infrastructure Implementation Engineer his realigns the workload to the appropriate function on the (IRES) contract and is not content growth or reduction to	ie o					
Title: Facilities and Maintenance	Ar	ticles:	14.547 -	14.708 -	15.68 -		
Description: RECURRING: Host Tenant Support(Electrical, Gas, Sewer, Water, Steam, Chilled and Communications Support): - Procure utility services through 50th Air Force Space Wing (Host E - Sustain utility infrastructure and delivery systems							

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED Page 5 of 28

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Def	fense Agency	Date:	February 2018	8			
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD22 I Missile Defense Integration and Operations Center (MDIOC)					
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)	FY 2017	FY 2018	FY 2019			
Environmental, Safety and Occupational Health (ESOH): - Maintain and updated the program accident prevention plan - Provide required industrial safety training to facility services personal protection equipment for contra - Ensure compliance with Hazardous Waste, Hazardous Material Fundamental Programs - Conduct recurring safety and environmental audits	cted activities						
Facilities Operations and Sustainment: - Provide 24 hours a day, 365 days a year, facility maintenance broventilation, and Air Conditioning; plumbing; locksmith) with a responsible to the conduct preventative maintenance inspections (PMIs) for all build	onse time of 15 minutes after normal duty hours						
Facilities Engineering: - Conduct Management Process Facility Installation Standard Aud - Provide risk management analysis and mitigation plans - Maintain infrastructure drawings configuration management data - Develop and document facility long range planning programming - Provide consulting services, preliminary designs and engineering buildout changes	bases on a limited basis	cture					
Missile Defense Integration and Operations Center (MDIOC) Oper - Lease General Services Administration (GSA) vehicles and a cor - Fund calibration of measuring and monitoring equipment - Fund repair of classified network switches							
Facility Services: - Provide custodial services for over 675,000 square feet of floor s - Provide limited Copy Center and Shuttle Services for over 2,000 - Provide in/out processing - Personnel moves to include cubicle and workstation setup, teards	personnel						
Specific and/or unique accomplishments to a FY are as follows:							

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED Page 6 of 28

	UNCLASSIFIED						
Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defe	ense Agency		Date: Fe	ebruary 2018			
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)	MD22 /	Project (Number/Name) ND22 I Missile Defense Integration and Operations Center (MDIOC)				
B. Accomplishments/Planned Programs (\$ in Millions, Article C	Quantities in Each)		FY 2017	FY 2018	FY 2019		
FY 2018 Plans: - SEE ABOVE.							
FY 2019 Plans: - SEE ABOVE.							
FY 2018 to FY 2019 Increase/Decrease Statement: The increase from FY 2018 to FY 2019 reflects the realignment of the Infrastructure Systems and Support R2a above. This is not content realignment of the workload to the more appropriate function.							
Title: Engineering and Event Services	Art	ticles:	7.165 -	7.215 -	10.180 -		
Description: RECURRING: - Provide Mission Assurance by ensuring the successful execution of at the MDIOC facility Ensure independent verification, and coordinate customer validation by MDIOC Engineering Provide Risk Management by identifying, assessing, and prioritizing control the probability and impact of events. Develop strategies to manage	on of all activities, work products and requirements fulfilleding risks. Coordinate resources to minimize, monitor and	d					
 Ensure Coordination and Integration through a proactive approach conduct of CTTO activities in a dynamic environment. Provide Systems Engineering by developing effective solutions thr activities. Provide governance and training to stakeholders, enforce for the vetting and implementation of requirements. Ensure Configuration Management so that CTTO events are not demand and the Technical Baseline to establish a common reference, across 	of sharing critical information necessary for the successfund of sharing critical information necessary for the successfund of sharing a structured, repeatable process for MDIOC engined policy, establish and maintain a unified board structure disrupted by multiple competing activities.	ering					
the MDIOC Provide Change Management to track changes to the IT and MDIO affect CTTO activities, and determine when any change is least likely to in		may					

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED

Page 7 of 28 R-1 Line #83

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile	Defense Agency	Date: F	ebruary 2018	8			
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD22 I Missile Defense Integration and Operations Center (MDIOC)					
B. Accomplishments/Planned Programs (\$ in Millions, Artic	cle Quantities in Each)	FY 2017	FY 2018	FY 2019			
technical baseline, are clearly recorded and identified on a near - Provide effective requirements management by documenting development in conjunction with the design solution processes. - Provide Event Architecture and Engineering Design by coording major MDIOC hosted/supported CTTO activities. Maintain a repositor - Provide cradle to grave event management for MDIOC supportion - Provide a Mission Planning Element to oversee the event sup support platform. Ensure the fulfillment of technical, personnel, facility, - Provide a Mission Execution Element-to ensure asset protection - Ensure Organizational Integration by establishing and enforcing process for information sharing and coordination. - Provide Cybersecurity to ensure the protection of MDIOC network to the provide Cybersecurity to ensure the protection of MDIOC network and the provide Contract Program Management oversight including by and manage cross-project dependencies. Conduct activities within	r-real-time basis. decisions and information generated during requirements nating design and implementation of technical architectures for ry of architectures for real-time configuration management. rted CTTO events. port life cycle provided by the MDIOC engineering and event and cybersecurity requirements. ion and incident response for all MDIOC supported CTTO events seamless integration across the MDIOC. Provide a repeate works, computers, programs and data from attack, damage or usiness, finance, contract administration and management. Ic	or all nts. able					
Specific and/or unique accomplishments to a FY are as follows	:						
FY 2018 Plans: - SEE ABOVE.							
FY 2019 Plans: - SEE ABOVE.							
FY 2018 to FY 2019 Increase/Decrease Statement: The increase from FY 2018 to FY 2019 reflects the realignment explained in that R2a Change Summary and reprioritization of fR2a Change Summary. This rewrite of the Engineering and Events	funds from Operations and Sustainment R2a as explained in t	hat					

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED

Page 8 of 28 R-1 Line #83

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile D				ebruary 2018			
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)	MD22 / Miss	roject (Number/Name) ID22 I Missile Defense Integration and Operations Center (MDIOC)				
B. Accomplishments/Planned Programs (\$ in Millions, Artic	le Quantities in Each)	FY 2	017	FY 2018	FY 2019		
without the overly detailed descriptive tasks that previously exist or reduction to the overall program content.	ted. This rewrite and realignment of workload is not content g	rowth					
Title: Operations and Sustainment	Art	ticles:	4.870 -	5.682 -	5.15 -		
Description: RECURRING: - Fund Civilian and CSS positions supporting operations and su (MDIOC) activities contributing to the mission execution platform - Provide quality event planning, coordination, logistics, security events and visitors - Deliver integrated service coordination for all MDIOC event and Event Registration Web site - Offsite event registration - Security processing, including clearance verification and badging and Arrangement/Coordination/Scheduling of bus transportation - Reservation, setup, and coordination of access for all primary of the preparation of Audio Visual equipment during events - Preparation for and conduct of official ceremonies; coordination information disclosure approval coordination - Fund Training and Travel Specific and/or unique accomplishments to a FY are as follows: FY 2018 Plans: - SEE ABOVE. FY 2019 Plans: - SEE ABOVE. FY 2018 to FY 2019 Increase/Decrease Statement: The decrease reflects an internal realignment in FY 2019 of \$0. MiDAESS/TEAMS Protocol Support funding within the Operation	access and host support for all MDIOC d protocol support including management of the: ing shared MDIOC conference rooms n and hosting of Distinguished Visitor itineraries; and						

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED Page 9 of 28

				UNCLAS	SIFIED								
Exhibit R-2A, RDT&E Project Jus	tification: PB	2019 Missile	e Defense A	gency					Date: F	ebruary 2018			
Appropriation/Budget Activity 0400 / 4				PE 06	03904C <i>I Mi</i>	nent (Numb issile Defens enter (MDIO	e Integration	MD22	Project (Number/Name) MD22 I Missile Defense Integration and Operations Center (MDIOC)				
B. Accomplishments/Planned Pro	ograms (\$ in N	/lillions, Art	ticle Quantit	ies in Each	1				FY 2017	FY 2018	FY 2019		
major events supported within the I growth or reduction to the overall p	Engineering an	d Event Sup				ent of worklo	ad is not cont	tent					
Title: Infrastructure Systems Repair	r, Sustainmen	, and Critica	al Upgrades				A	rticles:	4.940 -	2.000	3.50		
Description: RECURRING:													
- Heating, Ventilation, and Air Concassurance to critical mission areas within Buildin - Fire Suppression System Complia Specific and/or unique accomplish FY 2018 Plans: The decrease from FY 2017 to FY with the MDIOC Facility Sustainme Defense established goals. Projects are listed in the R4 schedu FY 2019 Plans: - SEE ABOVE.	g 720 (one qua ince Project (to nents to each 2018 in the Inf nt Plan and en	adrant) wo quadrant FY are as fo	s) ollows: Systems Rep	pair, Sustainr	nent, and C	ritical Upgrad	des aligns fur						
FY 2018 to FY 2019 Increase/Dec The increase from FY 2018 to FY 2 conditioning capacity to meet incre components to sustain DoD manda	019 reflects hased mission o	aving to increase apability rec	quirements a					life					
				Accon	nplishment	s/Planned P	rograms Sul	btotals	50.516	50.261	51.84		
C. Other Program Funding Sumn Line Item • 0603294C: Common Kill Vehicle Technology	FY 2017 54.395	ons) FY 2018 252.879	FY 2019 Base 189.753	FY 2019 OCO -	FY 2019 Total 189.753	FY 2020 205.645	FY 2021 254.130	FY 202 122.49		Cost To Complete Continuing	Total Cos		

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED

Page 10 of 28 R-1 Line #83

EXHIBIT R-2A, RD1&E Project Just	incation: PB	2019 MISSII	e Detense Aç	gency				Date: February 2018				
Appropriation/Budget Activity 0400 / 4	400 / 4						er/Name) e Integration C)	Project (Number/Name) MD22 I Missile Defense Integration and Operations Center (MDIOC)				
C. Other Program Funding Summ	ary (\$ in Milli	ons)		·								
			FY 2019	FY 2019	FY 2019					Cost To		
<u>Line Item</u>	FY 2017	FY 2018	<u>Base</u>	000	<u>Total</u>	FY 2020	FY 2021	FY 2022	FY 2023	Complete	Total Cost	
 0603881C: Ballistic Missile 	197.171	292.262	214.173	-	214.173	199.399	197.451	174.161	152.174	Continuing	Continuing	
Defense Terminal Defense Segment	<u> </u>											
 0603882C: Ballistic 	1,034.861	957.097	926.359	-	926.359	1,046.235	847.537	585.956	572.619	Continuing	Continuing	
Missile Defense Midcourse												
Defense Segment												
• 0603890C: <i>BMD</i>	435.203	465.642	540.926	-	540.926	542.326	608.210	489.637	496.313	Continuing	Continuing	
Enabling Programs												
 0603892C: AEGIS BMD 	889.489	860.788	767.539	-	767.539	780.085	707.901	693.256	562.748	Continuing	Continuing	
0603893C: Space Tracking	37.809	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
and Surveillance System												
0603896C: Ballistic Missile	465.433	454.862	475.168	-	475.168	515.239	494.873	492.119	515.529	Continuing	Continuing	
Defense Command and												
Control, Battle Management												
& Communication												
 0603898C: Ballistic Missile 	47.402	48.954	48.767	-	48.767	53.418	51.448	54.076	54.061	Continuing	Continuing	
Defense Joint Warfighter Support												
 0603907C: Sea Based 	115.201	145.695	149.715	-	149.715	175.013	155.718	129.044	136.390	Continuing	Continuing	
X-Band Radar (SBX)												
• 0603913C: <i>Israeli</i>	268.735	105.354	300.000	-	300.000	300.000	300.000	300.000	300.000	Continuing	Continuing	
Cooperative Programs												
 0603914C: Ballistic 	294.441	316.193	365.681	-	365.681	349.388	320.909	320.332	327.584	Continuing	Continuing	
Missile Defense Test												

Remarks

D. Acquisition Strategy

The Joint National Integration Center Research and Development Contract / Integrated Research and Development for Enterprise Solutions Contract is the major performing integrated contract and is scheduled to be recompeted in FY 2017. The acquisition strategy for MDIOC mission execution is to employ a contract to perform designated integration and sustainment tasks to conduct BMDS Research, Development, Test and Evaluation (RDT&E). The MDIOC is operated by missile defense subject matter experts composed of Government, military, civilian personnel, MDIOC Contract Support Services, and major defense contractors.

E. Performance Metrics

N/A

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

Exhibit R-24 RDT&F Project Justification: PR 2019 Missile Defense Agency

UNCLASSIFIED
Page 11 of 28

R-1 Line #83

Date: February 2018

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency

R-1 Program Element (Number/Name)

PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)

Project (Number/Name)

MD22 I Missile Defense Integration and Operations Center (MDIOC)

Date: February 2018

Product Developme	nt (\$ in M	illions)		FY	2017	FY	2018		2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks

0400 / 4

Appropriation/Budget Activity

N/A

Support (\$ in Millions	s)			FY 2	2017	FY 2	2018		2019 ase		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Infrastructure Systems and Support - IRES/TBD	C/CPIF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	0.000	0.000		1.000	Jul 2018	0.000		-		0.000	Continuing	Continuing	Continuing
Infrastructure Systems and Support - MDIOC JRDC/ IRES	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	136.195	18.994	Nov 2016	19.656	Jan 2018	17.324	Oct 2018	-		17.324	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Custodial	C/FFP	MDIOC/Ability One : Colorado Springs, CO	2.491	1.158	Oct 2016	1.182	Dec 2017	1.205	Dec 2018	-		1.205	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC GSA / Leases / Calibration	MIPR	Various (GSA, Warehouses) : Colorado Springs, CO	6.864	0.617	Nov 2016	0.629	Oct 2017	0.643	Nov 2018	-		0.643	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC IRES/TBD	C/CPIF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	0.000	0.000		1.000	Jul 2018	0.000		-		0.000	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC JRDC/IRES	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	83.447	9.664	Nov 2016	8.699	Nov 2017	10.561	Oct 2018	-		10.561	Continuing	Continuing	Continuing
Facilities and Maintenance - MDIOC Utilities	MIPR	50th Space Wing : Schriever AFB, CO	17.634	3.108	Oct 2016	3.198	Oct 2017	3.276	Oct 2018	-		3.276	Continuing	Continuing	Continuing

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED
Page 12 of 28

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency

Appropriation/Budget Activity

0400 / 4

R-1 Program Element (Number/Name) PE 0603904C *I Missile Defense Integration*

and Operations Center (MDIOC)

Project (Number/Name)

MD22 I Missile Defense Integration and

Date: February 2018

Operations Center (MDIOC)

Support (\$ in Millions	s)			FY 2	2017	FY 2	2018	FY 2 Ba	2019 ise	FY 2		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Engineering and Event Services - MDIOC JRDC/ IRES	C/CPAF	MDIOC /Northrop Grumman Mission Systems : Colorado Springs, CO	59.068	7.165	Oct 2016	7.215	Nov 2017	10.180	Nov 2018	-		10.180	Continuing	Continuing	Continuing
Operations and Sustainment - FFRDC	FFRDC	MDIOC : Colorado Springs, CO	2.167	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Operations and Sustainment - Operations & Sustainment	Allot	MDIOC : Colorado Springs, CO	20.717	2.900	Oct 2016	3.000	Oct 2017	2.836	Oct 2018	-		2.836	Continuing	Continuing	Continuing
Operations and Sustainment - Support Services	C/CPFF	MiDAESS/TEAMS Multi : Colorado Springs, CO	16.596	1.940	Nov 2016	2.622	Nov 2017	2.256	Nov 2018	-		2.256	Continuing	Continuing	Continuing
Operations and Sustainment - Travel and Training	Allot	MDIOC : Colorado Springs, CO	0.663	0.030	Oct 2016	0.060	Nov 2017	0.060	Nov 2018	-		0.060	Continuing	Continuing	Continuing
Infrastructure Systems Repair, Sustainment, and Critical Upgrades - MDIOC JRDC/IRES	C/CPAF	MDIOC/Northrop Grumman Mission Systems : Colorado Springs, CO	8.114	4.940	Dec 2016	2.000	Jan 2018	3.500	Jan 2019	-		3.500	Continuing	Continuing	Continuing
		Subtotal	353.956	50.516		50.261		51.841		-		51.841	Continuing	Continuing	N/A

Remarks

Funds for utilities and base communications are specified in the Inter-service Support Agreement with the 50th Space Wing. In addition, the Missile Defense Integration and Operations Center (MDIOC) provides Technical Contract Support Services employees, for MDIOC operations and oversight of the Joint Research and Development Contractor (JRDC), as well as funding for JRDC work as required by the government.

Test and Evaluation	(\$ in Milli	ons)		FY	2017	FY 2	2018		2019 ase		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
	·	Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks

N/A

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

UNCLASSIFIED
Page 13 of 28

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency	Date: February 2018
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Appropriation/Budget Activity

0400 / 4

R-1 Program Element (Number/Name)
PE 0603904C I Missile Defense Integration
and Operations Center (MDIOC)

Project (Number/Name)
MD22 I Missile Defense Integration and
Operations Center (MDIOC)

Management Service	es (\$ in M	illions)		FY 2	2017	FY 2	2018		2019 ise	FY 2		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	N/A

Remarks

N/A

	Prior Years	FY 2	2017	FY 2	2018	FY 2 Ba	2019 se		2019 CO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	353.956	50.516		50.261		51.841		-		51.841	Continuing	Continuing	N/A

Remarks

N/A

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Missile Defense Agency															Date	: Fel	brua	ary 20)18		
0400 / 4	E 060	390)4C	Elemonia de la Missione Certa de la Missione de la	sile	Def	ens	e In		•	n I	MD	22 <i>I</i>	Mis	sile l	e r/Na Defer ter (I	nse	Integ	ratio	on an	nd
Significant Event Complete ▲ Milestone Decision Complete ★ Element Test Col Significant Event Planned △ Milestone Decision Planned ☆ Element Test Pla	mplete				5	Syste	m Le	vel T		Comp Planr	olete	•		C	ompl	ete Ac	ctivity	+			
		FY	201	7	FY	2018		FY	⁄ 20	19	F	Y 20	20	F	Y 20	21	F	Y 2022	2	FY 2	202
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade t	to <	>		\$																	
improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2017)																					
Replace/repair drainage/sewer system (Phase I -Building 720)	<	> <	*	\$																	
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase II)	<	> <	*	\$																	
Fire Suppression System Compliance Project (two quadrants)(FY 2017)				\$																	
Replace Heating, Ventilation, and Air Conditioning (HVAC) Chilled Water Pumps (North System)				\$																	
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade t	to				*	\$	♦														
improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2018)																					
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase III)					*	\$															
Electrical power distribution in two mission quadrants to replace- End-of-Life systems, increase						\$															
reliability, improve power distribution efficiency, and redundancy to mission critical areas																					
Fire Suppression System Compliance Project (two quadrants)(FY 2018)					*	\$	♦														
Replace end-of-life Emergency Lighting Module (Building 730)						\$	♦														
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade t	to						<	≻ <	≻ <	>											
improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2019)																					
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase IV)							<			>											
Replace/repair drainage/sewer system (Phase III -Building 720)							<	_	_	>											
Fire Suppression System Compliance Project (two quadrants)(FY 2019)								<	> <	*											
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade t	to										♦		>								
improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2020)																					L
nstall Ambient Air Economizer (greening initiative)												_	>	_							
Replace Heating, Ventilation, and Air Conditioning (HVAC) Chilled Water Pumps (North and South Loops)											♦	♦ <	>								
Fire Suppression System Compliance Project (two quadrants)(FY 2020)											<	◇ <	> <								

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Missile Defense Agency									Da	te: F	ebru	ıar	y 20)18		
Appropriation/Budget Activity 0400 / 4	PE 06	rogram 603904C peration	l Missile	Defen	se Inte	•	MD2	ect (N 2 / Mis ations	ssile	e Def	ens	e Ir	_	ratio	n an	d
Significant Event Complete ▲ Milestone Decision Complete ★ Element Tes Significant Event Planned △ Milestone Decision Planned ☆ Element Tes						st Comple st Planned				plete ned A						
		FY 2017	Y FY	2018	FY 2	2019	FY 2020	0	FY:	2021		FΥ	2022	2	FY 2	2023
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgraimprove mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2021								*	\$	\$	>					
Fire Suppression System Compliance Project (two quadrants)(FY 2021)									\$	<> <	>					
Availability/Arc Flash/Short Circuit Coordination Study										\$						T
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgraimprove mission assurance to critical mission areas within Building 720 (one quadrant) (FY2022													\$			
Fire Suppression System Compliance Project (two quadrants) (FY2022)	,										♦	♦	\$	♦	+	\dashv
Fire Suppression System Compliance Project (two quadrants) (FY2023)											\ \ \	· ·	'			♦
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgra improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2023															\$	_

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Missile Defense Agency			Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 4	PE 0603904C I Missile Defense Integration	MD22 / Mis	ssile Defense Integration and
	and Operations Center (MDIOC)	Operations	Center (MDIOC)

Schedule Details

	Sta	art	Er	nd
Events	Quarter	Year	Quarter	Year
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2017)	1	2017	4	2017
Replace/repair drainage/sewer system (Phase I -Building 720)	1	2017	4	2017
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase II)	1	2017	4	2017
Fire Suppression System Compliance Project (two quadrants)(FY 2017)	2	2017	4	2017
Replace Heating, Ventilation, and Air Conditioning (HVAC) Chilled Water Pumps (North System)	2	2017	4	2017
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2018)	1	2018	4	2018
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase III)	1	2018	4	2018
Electrical power distribution in two mission quadrants to replace- End-of-Life systems, increase reliability, improve power distribution efficiency, and redundancy to mission critical areas	2	2018	3	2018
Fire Suppression System Compliance Project (two quadrants)(FY 2018)	2	2018	4	2018
Replace end-of-life Emergency Lighting Module (Building 730)	3	2018	4	2018
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2019)	1	2019	4	2019
Re-purpose basement space to accommodate IT and Infrastructure support personnel (Phase IV)	1	2019	4	2019
Replace/repair drainage/sewer system (Phase III -Building 720)	1	2019	4	2019

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

Appropriation/Budget Activity 0400 / 4 PE 0603904C / Missile Defense Integration and Operations Center (MDIOC) Project (Number/Name) MD22 / Missile Defense Integration operations Center (MDIOC)	Exhibit R-4A, RDT&E Schedule Details: PB 2019 Missile Defense Agency				Date: February 2018	
		PE 0603904C	I Missile Defense Integration	MD22 / Mis	ssile Defense Integration and	1

	Sta	art	Eı	nd
Events	Quarter	Year	Quarter	Year
Fire Suppression System Compliance Project (two quadrants)(FY 2019)	2	2019	4	2019
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2020)	1	2020	4	2020
Install Ambient Air Economizer (greening initiative)	1	2020	4	2020
Replace Heating, Ventilation, and Air Conditioning (HVAC) Chilled Water Pumps (North and South Loops)	1	2020	4	2020
Fire Suppression System Compliance Project (two quadrants)(FY 2020)	2	2020	4	2020
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant)(FY 2021)	1	2021	4	2021
Fire Suppression System Compliance Project (two quadrants)(FY 2021)	2	2021	4	2021
Availability/Arc Flash/Short Circuit Coordination Study	3	2021	3	2021
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2022)	1	2022	4	2022
Fire Suppression System Compliance Project (two quadrants) (FY2022)	1	2022	4	2022
Fire Suppression System Compliance Project (two quadrants) (FY2023)	1	2023	4	2023
Heating, Ventilation, and Air Conditioning end-of-life component replacement and capacity upgrade to improve mission assurance to critical mission areas within Building 720 (one quadrant) (FY2023)	1	2023	4	2023

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2019 N	/lissile Defe	nse Agency	/					Date: Febr	uary 2018		
Appropriation/Budget Activity 0400 / 4						` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `				Project (Number/Name) MC22 / Cyber Operations			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
MC22: Cyber Operations	1.568	0.446	0.612	0.610	-	0.610	0.634	0.646	0.659	0.672	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	_	-	-	-	-			

Note

N/A

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) conducts Cyber Defensive Operations through Key Management Infrastructure and Information Assurance Training which interfaces with the Information Technology/Information Assurance Enterprise to provide secure communications, network health and status monitoring, mission critical restoral capability, and technical expertise.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019
Title: Cyber Defensive Operations	0.446	0.612	0.610
Articles:	-	-	-
Description: RECURRING:			
The Missile Defense Integration and Operations Center (MDIOC) conducts Defensive Cyber Operations in the following categories:			
Key Management Infrastructure			
- Interface with the Information Technology/Information Assurance Enterprise to provide for the generation, production, control and			
distribution, and training for utilizing the keying material used with the Agency's cryptographic devices. Information Assurance Training			
- Maintain an Information Assurance (IA) certified workforce through continuous IA training as required by DoD Directive 8570			
Walliam an illionnation / Board foo (ii i) continue worklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored allieugh continued ii v training ac required by bob billiout vorklored ii v training ac required by bob billiout vorklored ii v training ac required by bob billiout vorklored ii v training ac required by bob billiout vorklored ii v training ac required by bob billiout vorklored ii v training ac required by bob billiout vorklored ii v training ac required by bob billiout v training ac required by billiout v training ac			
Specific and/or unique accomplishments to a FY are as follows:			
FY 2018 Plans:			
The increase from FY 2017 to FY 2018 in the Cyber Operations is due to the increase in mandates imposed by Congress to mitigate the cyber security threat to the Agency and DoD.			
FY 2019 Plans: - SEE ABOVE.			
FY 2018 to FY 2019 Increase/Decrease Statement:			

PE 0603904C: Missile Defense Integration and Operatio... Missile Defense Agency

UNCLASSIFIED Page 19 of 28

R-1 Line #83

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / Missile Defense Integration and Operations Center (MDIOC)		Project (Number/Name) AC22 I Cyber Operations						
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)	F	FY 2017	FY 2018	FY 2019				
The reduction between FY2018 to FY2019 assumes additional risk by reducing the Key Management Infrastructure and Information Assurance Training which interfaces with the Information Technology/Information Assurance Enterprise to provide									
secure communications, network health and status monitoring, mission critical restoral capability, and technical expertise.									

Accomplishments/Planned Programs Subtotals

C. Other Program Funding Summary (\$ in Millions)

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

PE 0603904C: *Missile Defense Integration and Operatio...* Missile Defense Agency

Date: February 2018

0.446

0.612

0.610

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency		Date: February 2018	
0400 / 4	,	, ,	umber/Name) ber Operations

Test and Evaluation	(\$ in Milli	ons)		FY 2017		FY 2	2018	FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Cyber Defensive Operations - Cyber Defensive Operations	C/CPAF	MDIOC/Northrop : Grumman Mission Systems Colorado Springs, CO	1.568	0.446	Dec 2016	0.612	Jan 2018	0.610	Jan 2019	-		0.610	Continuing	Continuing	Continuing
	Subtotal 1.5			0.446		0.612		0.610		-		0.610	Continuing	Continuing	N/A

Remarks

N/A

Management Service	es (\$ in M	illions)		FY:	2017	FY:	2018	FY :	2019 ise	FY 2	2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal -				-		-		-		-		-	-	-	N/A

Remarks

N/A

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.568	0.446	0.612	0.610	-	0.610	Continuing	Continuing	N/A

Remarks

N/A

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

R-1 Line

Appropriation/Budget Activity 040014 R-1 Program Element (Number/Name) PE 0603904C 1 Missie Defense Integration and Operations Center (MDIOC) Significant Event Complete ★ Milestone Decision Complete ★ Milestone Decision Planned ☆ System Level Test Flanned ○ Complete Activity ◆ Planned Activity ◆ Pry 2017 Fry 2018 Fry 2019 Fry 2020 Fry 2021 Fry 2022 Fry 202 MC22 Cyber Operations	Exhibit R-4, RDT&E Schedule I	Profile: PB 2019 Missile Defens	se Agency					Date: Fe	bruary 2018	}
Significant Event Planned △ Milestone Decision Planned ☆ Element Test Planned ◇ System Level Test Planned ○ Planned Activity ❖ FY 2017 FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 20			PE	E 0603904C / /	Aissile Defer	se Integration				
	Significant Event Complete ▲ Significant Event Planned △	Milestone Decision Complete ★ Milestone Decision Planned ☆	Element Test Cor Element Test Pla	nned 🔷	System	evel Test Planned	0	Planned Ac	tivity 💠	
MC22 Cyber Operations										FY 2023
	VICZZ Cybel Operations					V V V V V	V V V	V V V V		V V V V

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Missile Defense Agency			Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 4	PE 0603904C I Missile Defense Integration	MC22 / Cy	ber Operations
	and Operations Center (MDIOC)		

Schedule Details

	St	art	Er	nd
Events	Quarter	Year	Quarter	Year
MC22 Cyber Operations	1	2017	4	2023

Exhibit R-2A, RDT&E Project Ju	nibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency													
Appropriation/Budget Activity 0400 / 4	•• •						` ` ,				Project (Number/Name) MD40 / Program-Wide Support			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost		
MD40: Program-Wide Support	13.955	2.521	2.392	2.474	-	2.474	2.551	2.619	2.764	2.821	Continuing	Continuing		
Quantity of RDT&E Articles	-	-	-	-	-	_	-	-	-	-				

Note

Program Wide Support reflects proportional changes as a result of budget changes to the Missile Defense Integration and Operations Center program element. Funding in the All Prior Years column represents a summary of Prior Years Total Costs for active contracts, Military Interdepartmental Purchase Requests on the R-3

A. Mission Description and Budget Item Justification

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire BMDS. It Includes Government Civilians and Contract Support Services. This provides integrity and oversight of the BMDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes Global Deployment personnel and support performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations. Other MDA wide costs includes: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. PWS is allocated on a pro-rata basis and therefore, fluctuates by year based on the adjusted RDT&E profile (which excludes: 0305103C Cyber Security Initiative, 0603274C Special Programs, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019
Title: Program Wide Support	2.521	2.392	2.474
Articles:	-	-	-
Description: N/A			
FY 2018 Plans:			
N/A			
FY 2019 Plans:			
N/A			
FY 2018 to FY 2019 Increase/Decrease Statement: N/A			
	2.521	2.392	2.474
Accomplishments/Planned Programs Subtotals	2.521	2.392	2.474

PE 0603904C: Missile Defense Integration and Operatio... Missile Defense Agency

UNCLASSIFIED
Page 24 of 28

Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defe	ense Agency	Date: February 2018
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603904C / Missile Defense Integration and Operations Center (MDIOC)	Project (Number/Name) MD40 / Program-Wide Support
C. Other Program Funding Summary (\$ in Millions)		
N/A		
<u>Remarks</u>		
D. Acquisition Strategy		
N/A		
E. Performance Metrics		
N/A		

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency

Appropriation/Budget Activity

0400 / 4

R-1 Program Element (Number/Name)
PE 0603904C / Missile Defense Integration

Project (Number/Name)
MD40 / Program-Wide Support

Date: February 2018

and Operations Center (MDIOC)

Support (\$ in Million	s)			FY 2	2017	FY 2	2018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities, Operations, and Maintenance	MIPR	Various : Multi: AK, AL, CA, CO, VA	5.311	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Allot	Various : Multi: AL, CA, CO, VA	0.314	0.178	Jul 2017	0.048	Jul 2018	0.037	Jul 2019	-		0.037	0.241	0.818	0.000
Program Wide Support - Agency Operations and Support Services	Reqn	Various : Multi: AK, AL, CA, CO, VA	8.330	2.145	Nov 2016	2.344	Nov 2017	2.437	Aug 2019	-		2.437	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services.	C/CPFF	Various : Alatec INC, AL, CO, VA	0.000	0.198	Aug 2017	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	13.955	2.521		2.392		2.474		-		2.474	Continuing	Continuing	N/A

Remarks

N/A

	Prior Years	FY	2017	FY 2	018		2019 Ise	FY 20 OC		-		Target Value of Contract
Project Cost Totals	13.955	2.521		2.392		2.474		-	2.	74 Continuin	g Continuing	N/A

Remarks

N/A

PE 0603904C: *Missile Defense Integration and Operatio...*Missile Defense Agency

Exhibit R-4, RDT&E Schedu	le Profile: PB 2019 Missile Defen	se Agency					Date: February 20	18	
Appropriation/Budget Activity 0400 / 4			03904C /	ement (Num Missile Defen Center (MDIC	se Integration	Project (Number/Name) MD40 / Program-Wide Support			
Significant Event Complete ▲ Significant Event Planned △	Milestone Decision Complete ★ Milestone Decision Planned ☆	Element Test Comple Element Test Planned	\Diamond	System L	evel Test Complet evel Test Planned	0	Complete Activity ◆ Planned Activity ◆		
MD40 Program-Wide Support			FY 2017	FY 2018 → ♦ ♦ ♦ ♦		FY 2020	FY 2021 FY 2022	FY 2023	

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Missile Defense Agency			Date: February 2018
0400 / 4	R-1 Program Element (Number/Name) PE 0603904C I Missile Defense Integration and Operations Center (MDIOC)	, ,	umber/Name) ogram-Wide Support

Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
MD40 Program-Wide Support	1	2017	4	2023	